called control channel, used by the cellular communications provider to transmit and receive instructions between the MSD and the cellular network provider. The control channel is active from the moment a MSD handshakes the cellular network and until it is deactivated. Most cellular network providers charge for MSD connection time, so the cumulative cost of on line connection could be onerous. The transmission of data through the control channel occurs independently of whether the user has established a communication channel with the network; the only requirement is that the user activates the MSD. In addition to the control channel, these protocols provide a voice and a data channel whose functions are homonymous.

[0013] MSD communicate with one another or with fixed network stations through a variety of means and transmission arrangements. These means are well known to the person skilled in the art and include, but are not limited to, radio frequency (RF) transmissions in a plurality of spectra, infrared, laser, and others well known to the person skilled in the art. The transmission arrangements include, but are not limited to, cellular, satellite, MSD to MSD, wireless, and others well known to the person skilled in the art.

SUMMARY OF THE INVENTION

[0014] The present invention overcomes the foregoing and other shortcomings of front desk operations and lack of integration of the consumer into the distribution chain, by providing a system and method to furnish label-capturing capabilities to existing MSD and further providing the means to allow interactive transaction capabilities to standard MSD interconnected to remote transaction servers.

[0015] In accordance with one aspect of the present invention, a MSD user initiates a transaction activity by enabling a MSD and activating its operation through a proprietary MSD resident software program, through either an icon or a keyword. The MSD resident software program presents the MSD user with a series of options, chiefly among them one or more merchants with whom the MSD user wishes to realize a transaction. The MSD resident software program prompts the user to select from a variety of functions, including but not limited to, inquiries, purchases, drafting or editing shopping lists, or capturing labels. User inquiries may include questions specifically related to the selected merchant's current offerings or of comparative nature with other merchants' offerings of similar products. User purchase options may include in store pick up or delivery options according to the selected merchant's capabilities. Additionally, the purchase options' menu may include a variety of forms of payment according to the select merchant's capabilities.

[0016] The MSD user may be prompted by the resident software program to draft a new list of products about which desires to carry out a transaction, or may also retrieve a previously drafted product list and modify it. The shopping list may include products offered for sale by units, by weight, by volume, by length, or a by combination thereof, according to the selected merchant's offerings.

[0017] Depending on the label capturing capabilities of the MSD, its user may acquire a label, such as, for example and without limitation, a bar code label or a RF label. The label capturing means of the MSD may include, but it is not limited to, video camera, RF receiver, infrared receiver, laser scanner, and others well known to the person skilled in the art.

[0018] As an example, and without limitation, should the MSD user desire to acquire a bar code label utilizing the video camera capability of the MSD, the process may be as follows. Initially the MSD user will activate on the MSD a resident software program, which in turn will provide the user several interface options. Among the options offered to the user may be the selection of one or more merchants with whom an inquiry or a purchase may be transacted. Alternatively, the user may elect to capture a product label and then request a list of merchants that may be offering such product. The user may capture a bar code label from anywhere including, but not limited to, product packaging, newsprint advertisement, brochures, or websites; thus, it is not necessary that the user be physically at a merchant's place of business, just that it has access to a labeled product so it can be captured with a MSD equipped with label capturing means. Subsequently, the MSD resident software program will enable the video camera function of the MSD to capture an image of the label disposed in front of its video camera lens. The display screen of the MSD may be utilized as a viewfinder to determine whether the bar code label to be captured fits in its entirety within the capturing angle width of the video camera lens. A partially fitting bar code label will later be decoded partially and the resident software program will report a label capturing error to the MSD user. After the MSD user makes the proper adjustments to ensure full capture of the bar code label, the user triggers the capture of the image of the bar code label. Utilizing the MSD's processing capabilities, the MSD processes the captured image and deciphers it to determine whether the captured image corresponds to one of the standard bar code labels. The MSD resident software program then informs the user of the success or failure of the operation.

[0019] As another not limiting example, should the MSD have a RF receiver capability, it may be used to acquire an RF label. In that case the MSD resident software program will perform some of the following steps, including but not limited to, enable the RF receiving device on the MSD, capture the RF signal from the selected product, natively process the captured RF signal, determine whether the captured RF signal corresponds to an RF label standard, and inform the user of the success or failure of the operation.

[0020] Once the label-capturing task is accomplished, the resident software program may prompt the MSD user with a plurality of options. In the background, the MSD resident software program may communicate with one or more remote servers. The communication between the MSD and the remote servers is accomplished preferably utilizing the data channel of the MSD, although it may also utilize the control and voice channels. The use of the data channel of a MSD to transmit and receive data, instead of the voice channel, is important because in that manner the MSD user does not incur communication charges, which can be onerous. In places where unlimited cellular telephony does not incur a per minute charge, i.e. it is provided at a fixed cost, the use of the voice channel may be a transmission option. When using a voice communication channel, safeguards, well known to the person skilled in the art, should be applied so no to corrupt a data stream, such as when a MSD user's places or receives a voice call. Upon receiving the MSD